5: Castetter & Bell N-5 (1938-1940) 1942
NU28 Papago NV28
Pima NV29

Anciently the Piman method of harvesting maize was to pull up the entire plant, or, in some cases, break it off at the ground, and throw it in piles, care being taken to keep separate the several colors of corn, since they had been planted in different plots; this was man's work. One reason for pulling up and removing the stalks was to have the field cleared for the next season. After Spanish contact, plants were sometimes cut off at the ground with an iron implement. Another historic development associated with turning stock into the field to eat the stalks was to husk the corn directly off the standing plant, the stalk being allowed to remain. The individual first ran a sharpened, hard stick of creosote bush or mesquite through the husk, then broke the ear out and threw it on a pile. In any event, harvesting was begun at a convenient place in the field, and did not proceed by designated direction as among some of the Pueblos. There was no ceremonial restriction against burning the husks, cobs or stalks. Cobs were used as fuel, particularly in cooking, and some stalks might be used in building the walls of a new structure. Saving purple husks to be used as a source of dye was unknown.

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The plants were piled in one or more heaps, depending upon the size of the field, and women and older children usually gathered around the piles to remove unhusked ears from the stalks and throw them in piles. These ears were then carried to the dwelling in burden baskets (figured by Densmore[9]) by the women.

Although the Pimans husked some of their maize, particularly in selecting ears for seed, it was the common practice to partially roast their corn in unhusked ears by placing it in piles and covering with brush; this was set afire, green mesquite branches being used to stir and turn the ears, and, after several minutes of roasting, to throw them out on a bed of grass. During the roasting process much of the husk was burned away. These ears were dried on top of the house for

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[9] Densmore, *Papago Music*, pl. xx.

5: Castetter & Bell N-5 (1938-1940 1942
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ripen before being picked. Of course, at present, with the commercial growing of cotton, Pima pick the cotton from the open bolls directly off the plants in the field.

Cotton seed was stored in sealed ollas in exactly the same manner as were teparies. There was no selection; seed for planting was simply taken from the general supply stored for food.

Utilization of Cotton

Cotton was grown for both lint and seeds. The lint was used for cordage, cloth, garments and tinder. Tinder was prepared from a cotton rope about one-half inch thick, several inches long and frayed at one end, used especially for lighting cigarettes. Sparks made by pounding two pieces of flint together ignited the fiber. Its use as tinder may be a Spanish introduction.

Cotton seed was parched and eaten much like we use pop corn. The seeds were placed in an olla with embers of mesquite wood on top. The olla was continually shaken and the live coals soon parched the seed. Another way of utilizing the seed was in combination with mesquite or cornmeal. Mesquite pods were pounded fine with a wooden mortar and pestle, seeds removed, and the flour mixed with that secured by pounding parched cotton seeds in a mortar. The two were then mixed and molded into a sort of cake-like tortilla, baked in ashes and eaten. A combination of cotton meal and cornmeal was utilized in the same way. Informants said either mixture tasted like, and had the texture of, tallow. From the pounded seeds Papago and Pima made a kind of bread which was baked in hot ashes. At times, water was added to pounded cottonseed meal, strained, and the liquid used as seasoning in cooking. The strained meal residue was sucked in order to remove the nutriment, and the pulp discarded.

Papago informants stated cotton was used ceremonially on their prayer sticks to symbolize clouds, and thereby invite rain. Pimas preferred eagle down for this purpose.

17:Castetter & Underhill N.E-5 (1931-1934) 1935
NU28 Papago NU28

inches wide made of fox skin *(Vulpes fulvus)* with the hair left on to prevent chafing.

The Papagos at present say that certain of the bravest men fought with club and shield, and a club is mentioned for the "Pimas" in early Spanish accounts (10, 27). The club was of ironwood *(Olneya tesota)* about eighteen inches long, and informants say that it was merely a roughly shaped length of wood with a thong run through a perforation in the upper end so that it could be carried. The shield was a disk of leather sixteen inches in diameter made of cowhide or horsehide. Ownerless cows and horses have roamed the country ever since the coming of the first Spaniards, and the Papagos hunted these like deer.

The customary way of making the shield was to soak the hide in water, then cut out the disk and lay it on hot ashes to harden, stamping it into a slightly convex shape, two holes first being punched near the center about six inches apart. When dry a thong was laid along the outside of the shield, its two ends passing to the inside through these holes. On the inside was a short stick of wood with notched ends to which the thong ends were tied, forming a handle. When dry the shield was painted with mesquite "gum" *(Prosopis velutina)* prepared as for pots, or with red and white clay.

FIRE

Fire was made with the palm drill; the heart of a cactus rib *(Carnegia gigantea)* was held with the feet while the drill of creosote bush wood *(Covillea glutinosa)* or arrow bush *(Pluchea sericea)* was revolved between the palms. A little sawdust from dry sahuaro rib caught the spark which was transfererd to a pile of dry grass and manure.

POTTERY, EATING AND DRINKING VESSELS

Although a few old pottery jars appear to have lines in red ochre at present all decorations are in black. This black is usually made from the secretion of the mesquite